19990327.ba v02_n477.bam.990327 v02_n478.bam.990327

>From ???@??? Sun Mar 28 14:39:54 1999
Message-Id: <199903272050.OAA12964@sco.theporch.com>
Date: Sat, 27 Mar 1999 14:50:31 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2477

BOATANCHORS Digest 2477

Topics covered in this issue include:

1) Inrush Current Limiters
by "Benjamin D. Hall" <kd5byb@WT.NET>
2) RE: Lead Acid Battery
by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
3) RE: RBB meters
by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
4) Re: DO-DO Here
by Jerry Proc <jproc@idirect.com>
5) Re: DO-Do Here
by "Arden Allen" <gumbear@pacbell.net>
6) FMLA: Images
by mnhopkins@juno.com
7) FS: GR 724-A Wavemeter
by Greg Carter <kx4r@atl.mindspring.com>
8) FS:HT-32
by Greg Carter <kx4r@atl.mindspring.com>
9) GR 724-A SOLD
by Greg Carter <kx4r@atl.mindspring.com>
10) R-388A/URR Modification Work Order
by AviDov@aol.com
11) Fwd: R-388A/URR Modification Work Order
by AviDov@aol.com
12) Hammarlund and Heathkit Items for Sale
by <davidh@getnet.com>
13) Weatherford: all wet
by mnhopkins@juno.com
14) FS: T-195 Transmitter
by "David M. Nance" <dmnance@roanoke.infi.net>
15) Voltage regulation
by David and Shari Abell <dabell@aloha.net>
16) AN/URM32 Questions
by Jerry Proc <jproc@idirect.com>
17) A Postal MO is not like a check
by Bill Hawkins <bill@iaxs.net>
18) Re: AN/URM32 Questions

by Bill Hawkins <bill@iaxs.net>
19) hocum? WAS-> Re: DO-Do Here
by "Lawrence R. Ware" <lrware@pipeline.com>

Message-Id: <3.0.32.19990326210541.007c2e30@mail.wt.net>
Date: Fri, 26 Mar 1999 21:24:19 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "Benjamin D. Hall" <kd5byb@WT.NET>
Subject: Inrush Current Limiters
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 05:10 PM 3/26/99 -0800, Scott Robinson wrote:

> That's right. The goody in question is a "negative temperature coefficient thermistor." It has a high resistoance when cold and a low one when hot, so at first is limits the current, and then heats up, allowing full power to flow.

They are also marketed as "inrush current limiters," which is how I buy them from Mouser.

Someone awhile back posted a rather lengthy discussion on how to select these units, and I'll summarize what I remember and what my experiences have been:

When selecting an inrush limiter, one needs to be concerned about three, maybe four parameters:

1) Cold resistance
2) Hot resistance
3) Load capability
4) Heat dissipation

Number 3 is a no brainer - you want to select a limiter with a steady state current higher than the rig requires. Number 1 and 2 are interrelated - you want a limiter with very high cold resistance to provide maximum voltage drop upon turn-on, yet you want a low hot resistance so the set sees proper voltage.

I've settled on one unit for most of my BA's: the Keystone Thermetrics CL-90. It has a cold resistance of 120 ohms, and handles 2 amps continuous. I've noticed its hot resistance to be very small, in the order of an ohm or two. It is large - looks almost like a 2kv ceramic disk capacitor, but thicker.

When I install these units, I like to worry about Number 4 above - I don't put them anywhere I wouldn't mind heat.

I'm very happy with the way they perform - in testing with a CL-90 installed in the hot lead of my R-725 (an R-390A with an R-390 deck) between the input filter network and the fuse (easily converted to stock!), I've noticed a response like this:

Time (seconds)	Voltage Drop across limiter (volts AC)
2	51 (thats right, the set is seeing only 60-70 volts!)
5 or 6	~10 (the relays all pull in on the R-725)
15	~ 1 or 2

Past 15 seconds, the voltage drop drifts around (due to air currents in my shack), but stays within a couple of volts. I don't miss the volt or two lost - my line voltage is high because I'm nearly line of sight to HL&P's Webster Generating Station...

Bottom line, I think they are a nice thing for old gear like BA's, and I cannot see a downside to them. Comments anyone?

Thanks and 73,
Ben

---
Benjamin D. Hall, KD5BYB, Engine and radio collector / operator.
Located in Houston, Texas, USA.
e-mail: kd5byb@WT.net, web: ***down for refurbishment***
"An ye harm none, do what ye will."

Date: Fri, 26 Mar 1999 22:45:06 -0500
From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
Subject: RE: Lead Acid Battery
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903262245_MC2-6F94-EF0D@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline

Andre,

I'm not familiar with a 90A, but are you sure that it is lead-acid? Wet NiCad and AgZn batteries were also common, and quite large ones were produced.

Robert Downs
WA5CAB
Houston

Date: Fri, 26 Mar 1999 22:45:03 -0500
From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
Subject: RE: RBB meters
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903262245_MC2-6F94-EF0C@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline

Dennis & group,

The third (or first) meter is input, DB above 1 microvolt, range 0-120.

73,
Robert Downs
WA5CAB
Houston

Message-ID: <36FC613F.56B1B0F2@idirect.com>
Date: Fri, 26 Mar 1999 23:40:31 -0500
From: Jerry Proc <jproc@idirect.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: DO-DO Here
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Jderm740@aol.com wrote:

> What I am interested in is protecting the
> systems when I first turn them on.

Hi Jack,

Years ago, television sets used Globar resistors in series with the primary circuit of the power transformer. When cold, their resistance was high. As current flowed through the primary circuit, the resistor heated up and the resistance dropped.

Near the end of the tube era, manufacturers introduced this as a

marketing
feature into TV's in order to instill the idea that minimizing the
"inrush"
current would result in fewer service calls.

--

Regards,
Jerry Proc VE3FAB   jproc@idirect.com
Web: www3.sympatico.ca/hrc/haida
HMCS HAIDA Historic Naval Ship, Toronto Ontario

Message-Id: <199903270618.WAA05718@mail-gw5.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DO-Do Here
Date: Fri, 26 Mar 1999 22:19:20 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

> I keep reading posts about putting Surge Protectors on BAs to protect
valuable
> tubes and other irreplaceables. How do you do that? Inquireing dummies
want to
> know.

Frankly Jack, it's a lot of hocum. If using surge arresters had any real merit in BA's they would have been installed in them. Metal oxides varistors go back to the 50's, you find them commonly in TV's for temperature compensation for yokes and other drifty stuff. There is no great surge of current that wreaks havoc on tubes except in poorly designed series-parallel strings before the "A" suffix controlled warm-up time standards came into being. In power supplies that use silicon diode rectifiers, the winding resistance of the secondary is the current limiter and in some cases transformer core saturation further limits current momentarily when powered on. If you want a lesson in surge limiting, replace a selenium rectifier with a silicon diode rectifier in an AC/DC receiver without adding a 47 ohm surge limiting resistor in series. The silicon diode will sound like a firecracker when it goes!

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

From: mnhopkins@juno.com

To: Old Tube Radios <boatanchors@theporch.com>
Date: Sat, 27 Mar 1999 05:54:15 -0600
Subject: FMLA: Images
Message-ID: <19990327.055427.-370305.3.MNHopkins@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

"Neither of you gave any sign of it when Jerry was here," Frank told Christie, who was standing beside him as he peered into a National NC-240.

"We don't advertise the relationship," the 20ish young woman said, "because a quality person would never want to trade on family influence."

Frank set aside the converter board he was sizing for the National as she continued.

"It was a second marriage for both of them, and Carl never knew my mom at Parvoo." "Dad was at Cutter, Maine with Continental until I was 15." "When they went to Texas for TI, I stayed in boarding school." "I finished at, well, you would call it Radcliffe, in three years and by then Dad was affirmatively actioned out of a job." "I've been in the field for WAR for 19 months."

"It must have been very difficult for you, " Frank reflected.

"Humankind has prospered in constant troubles and will only perish in constant peace," she answered, and before I could place that quote she said: "Anyway, Sammy can watch you until my replacement comes."

My pal Frank, who plans to take back 56-60 mc with a Five Meter Liberation Army, assured her he was happy with the protection, however unsought, her organization gave him for helping with their communications chores. He again said he wanted nothing to do with the group's inner workings, but that he was satisfied with Christie and the situation as it existed. She plainly was not, but she hugged him and left up the stairway from our basement workshop.

It was Spring, and with it came one Preston Anderson, 20-year-old son of Frank's pal Carl Anderson and Carl's college sweetheart Jodi Preston. He was back from the Army and waiting with Frank until he reported to Annapolis. Press and Christie had a budding romance complicated by his learning she was the daughter of Jerry Bishop, a general in the WAR group and former friend of Carl's. The elders had not spoken for decades when Frank tricked them into a meeting.

"Images are everything," Frank said.

How true, I thought, as he continued: "With a 455 kc IF, you get into trouble as low as 7 mc unless you have two tuned RF stages, and by 10M it's hopeless." "The old Hallicrafters and Lafayette 6M AM rigs went to 1650 kc, but that meant you had trouble getting below 10 kc selectivity," he continued, as I readjusted my thoughts. "We need another stage here (to make the old National hear 5M) and the general rule is that the first conversion should be in the range of 10-20% of the frequency covered," he concluded.

"That thou woulds't be a Capulet?" I asked.

"My thoughts exactly," Frank admitted as he put down the board with the 6BS8 and 6U8. "Who would think that a chance meeting of old friends turned enemies would bring such anguish to another generation?" He settled on a 36 mc crystal for the converter as it allowed the National's 14 to 29 mc band to hear both 5 and 6 Meters. We got the '46 model peaked up for its new duty while the WARmon sat in Christie's usual place at the end of the bench. He was listening to a Satanic rock station on headphones. Frank and I missed Christie already.

"This needs fixing," Frank said, which I thought was the reason all three of us were hoisting a SP-600 to the bench, but as soon as the mastodon was secured he sent the WARmon to "round them up."

"Ghost Images," Frank told the lined up Press and Christie when the WARmon had retrieved them, "from the past are disrrupting my mission here." "We will succeed in recapturing 5 Meters," he continued, "only if we rise above personal discomfort." He had donned his double breasted jacket for this speech.

"I did not want any bodyguards at all," he said. "I have acclimated to the ones WAR sent, but I'll take no replacements."

"Similarly," he said as he stepped around a 388 case we use for a trash bin to stand in front of the attentive pair, "camaraderie with a son of an old friend cannot be allowed to divert me either."

"So I want, no I demand, your personal assurances that your parents' quarrels from the past, and any differences you might have in the present, will not be allowed to affect this operation." "If you cannot right now make those assurances, it would be better for you to leave."

Press seemed embarrassed, although I don't know what about, and Chrisite was a little teary, but both made the requisite promises and Frank went back to the Super Pro, waving away Christie's attempt to expand the meeting.

We worked on the Hammarlund's highest band to see if it would go above the marked 54 mc and the WARmon re tuned KTAC.

The promising couple went off to the Sonic, a 1950s style drive in, for a Coke.

de ab5L, Michael Hopkins, Box 226841, Dallas, TX 75222,
MNHopkins@JUNO.com FMLA XXVIX
Student of Tecraft, ICM, and Six Meters' golden age, 1956-58.

Message-Id: <3.0.5.16.19990327031610.320701d8@pop.atl.mindspring.com>
Date: Sat, 27 Mar 1999 03:16:10 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Greg Carter <kx4r@atl.mindspring.com>
Subject: FS: GR 724-A Wavemeter
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Still thinning down some of my collection here.
I have for sale a beautiful condition General Radio
model 724-A Precision Wavemeter. Complete with
all 7 coils (matching serial numbers) and calibration
charts dated 6/19/1944 ! These are all inside the original
felt lined wooden carrying case.

Price is $60 plus shipping from 30178.

Reply direct to   Greg KX4R   kx4r@mindspring.com

Tnx and 73 !

Message-Id: <3.0.5.16.19990327032438.3207081c@pop.atl.mindspring.com>
Date: Sat, 27 Mar 1999 03:24:38 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Greg Carter <kx4r@atl.mindspring.com>

Subject: FS:HT-32
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi gang !
Here's another transmitter that I haven't had to time to get on the bench. Hallicrafters HT-32

Tubes light up when turned on....that's as far as I've checked it out. Cabinet is ok but could probably stand a repaint. All knobs are original and front panel is very good.

Price is $125 plus shipping from 30178.....this item is very heavy and would prefer local sale to someone within driving distance of the Atlanta area.

Please reply direct to Greg KX4R kx4r@mindspring.com

Tnx and 73 !

Message-Id: <3.0.5.16.19990327034607.0b672f36@pop.atl.mindspring.com>
Date: Sat, 27 Mar 1999 03:46:07 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Greg Carter <kx4r@atl.mindspring.com>
Subject: GR 724-A SOLD
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The wavemeter is sold already !
Tnx, Greg KX4R

From: AviDov@aol.com
Message-ID: <31ef5f68.36fcf6c9@aol.com>
Date: Sat, 27 Mar 1999 10:18:33 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: R-388A/URR Modification Work Order
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

The upper left corner of my R-388 has a white stenciled notation in which reads: "MWO - 11-5820-202-35/2 CH.1." (GRC-26A mod to provide for break in operation).

What I need to learn is what circuit changes to look for in my newly acquired

Collins,Serial # 19 on Order # 3469 Phila 52 , which needs a lot of TLC and effort.
A copy of the above MWO,to update my TM.will be greatly appreciated.   73

From: AviDov@aol.com
Message-ID: <19deb4d4.36fcf7d7@aol.com>
Date: Sat, 27 Mar 1999 10:23:03 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Fwd: R-388A/URR Modification Work Order
Content-type: multipart/mixed;
     boundary="part0_922548183_boundary"

This is a multi-part message in MIME format.

--part0_922548183_boundary
Content-ID: <0_922548183@inet_out.mail.aol.com.1>
Content-type: text/plain; charset=US-ASCII

CORRECTION:
Subject should read " R-388/URR Modification Work Order "   Sorry !   73

--part0_922548183_boundary
Content-ID: <0_922548183@inet_out.mail.aol.com.2>
Content-type: message/rfc822
Content-transfer-encoding: 7bit
Content-disposition: inline

From: AviDov@aol.com
Return-path: <AviDov@aol.com>
To: boatanchors@theporch.com
Subject: R-388A/URR Modification Work Order
Date: Sat, 27 Mar 1999 10:18:33 EST
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

The upper left corner of my R-388 has a white stenciled notation in which reads: "MWO - 11-5820-202-35/2 CH.1." (GRC-26A mod to provide for break in operation).

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A copy of the above MWO,to update my TM.will be greatly appreciated.   73

--part0_922548183_boundary--

Message-Id: <199903271540.JAA10938@sco.theporch.com>
Subject: Hammarlund and Heathkit Items for Sale
Date: Sat, 27 Mar 99 15:40:11 +0000
From: <davidh@getnet.com>
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

I have the following for sale:

Matching Speaker to HQ-129X and similar Hammarlunds; excellent condition
- $135 shipped

Heathkit AM-2 SWR Bridge: matches DX-20, DX-35 and DX-40 - $50 shipped

Photos of these and more info can be seen at

http://www.getnet.com/~davidh/n7rkforsale.html

I am also parting out an Hallicrafters SX-96 and have the chassis with a
lot of parts left
(no knobs or power transformer)

73,

Dave N7RK

****

Dave N7RK - Webmaster CADXA
Phoenix, Arizona   *DXCC Honor Roll*   *WAZ#23 - 75 Meter SSB*

ex-N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor Collector Extraordinaire preferring Hallicrafters, National
and what ever else looks interesting!

E-Mail: davidh@getnet.com
My Home Page: http://www.getnet.com/~davidh

Visit the Central Arizona DX Association Home page - http://cadxa.org

----

From: mnhopkins@juno.com
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sat, 27 Mar 1999 09:45:52 -0600
Subject: Weatherford: all wet
Message-ID: <19990327.094555.-370305.0.MNHopkins@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Even without the rain, BA spirits were dampened this morning at the Weatherford, Texas, ham fest. Held in the armory home of the 49th Tank Corps, the exposition showed not one RX or TX offered before that illustrious unit was last called up for the Cuban Missile Crisis. The crowd was vintage, however, and if they get a few more electric scooters and cigarette or cholesterol cripples, next year's meet will have to be in a MASH unit.

There were big old tubes, of course, but prices were sky high for all save some un noticed 7094s (?) with sockets. Electric Radio regular Jim Musgrove left with a vintage Simpson meter for $5, but it would not have justified the 100 mi drive had I not had the company of the ferrets who saved me from the second chocolate covered donut.

It was a Hemingway day, but on the way back I thought of Holden Colfield. If you climb to the top of the highest mountain, when you get there, someone will have a Swan 350 for $175.

"I'm ready for Dayton," I told the large, raccoon-looking male. He bypassed the 0.1 ceramic he was sampling from a $5 sack of Radio Shack stuff and regarded me myopically as if to say, "Yea, so am I." "It's been a long Winter."

de ab5L, Michael Hopkins, Box 226841, Dallas, TX 75222,
MNHopkins@JUNO.com
Student of Tecraft, ICM, and Six Meters' golden age, 1956-58.

Message-ID: <36FD152A.2C3F9125@roanoke.infi.net>
Date: Sat, 27 Mar 1999 12:28:10 -0500
From: "David M. Nance" <dmnance@roanoke.infi.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS: T-195 Transmitter
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'll offer this to the list first before posting elsewhere:

I have for sale a pretty nice looking T-195 AM/CW transmitter which is the companion to the R-392 receiver. Front panel looks good and it has the ususal scratches on the case. I do not have any of the cables and have no way to test it. Prefer not to ship it but will consider doing so for actual UPS or RPS cost plus any packing material I might need to buy.
If I don't have to buy any additional material it will just be shipping charges. However, I should be able to arrange free (or nearly free) delivery to the following locations:

1. Raleigh, NC hamfest on April 11
2. Columbus, OH April 7 or 8 (or points in between Roanoke, VA & Columbus)
3. Ft Wayne, IN for pickup after April 9 (may run $20)

Price is $100. I'm looking for a nice SR-400 Cyclone and a National VX-501 remote VFO if cash is a problem. E-mail me with further questions and I will try to answer.

Thanks and have a good weekend,

David Nance WB4SSE
Roanoke, VA 24018
540-989-8606
e-mail: dmnance@roanoke.infi.net

Message-Id: <199903271845.IAA00135@leka.aloha.net>
Date: Sat, 27 Mar 1999 02:23:57 -1000
To: Old Tube Radios <boatanchors@theporch.com>
From: David and Shari Abell <dabell@aloha.net>
Subject: Voltage regulation
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi all,

I am currently building a power supply for a RBC-2 and need some advice.

I need to regulate 105V. AES does not list a VR100 in the tube list. What is the best way to regulate this voltage?

Also, to rectify 200 and 105 volts, what rectifier tubes would be best?

Thanks and aloha,

Dave, WH6OL

Message-ID: <36FD37B3.78C9388@idirect.com>
Date: Sat, 27 Mar 1999 14:55:31 -0500
From: Jerry Proc <jproc@idirect.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: AN/URM32 Questions
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Folks,

1) Just bought an AN/URM32 frequency meter with an AC power supply. In the upper left corner, there is an unmarked, momentary, push button switch. Depressing the switch kills the power to the unit. According to the schematic, it's a Battery Disconnect switch. Killing the power momentarily doesn't make much sense to me. What is the real purpose of the switch?

2) The front panel neon lamp blinks quite briskly, about 2-3 times per second. The lamp is connected to an R-C network which is supposed to have a time constant of 2.2 seconds. Just wondering what the usual blinking rate is?

3) With the voltage switch in the 'A' (filaments) position there is no reading on the meter. 'B' (B+) position works fine. Is this normal operation when an AC supply is connected?

4) Socket J2 on the AC power supply chassis has "floating mounts". J1 and J3 are fastened directly to the chassis. Can't figure out why J1 floats. It appears to be a factory original design.
--

Regards,
Jerry Proc VE3FAB   jproc@idirect.com
Web: www3.sympatico.ca/hrc/haida
HMCS HAIDA Historic Naval Ship, Toronto Ontario

Date: Sat, 27 Mar 1999 14:04:36 -0600 (CST)
From: Bill Hawkins <bill@iaxs.net>
Message-Id: <199903272004.OAA23892@citrus.iaxs.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: A Postal MO is not like a check

Took a $40 money order to the PO to cash when mailing the BA related thing that brought me the MO. The clerk told me that the new policy is that you have to spend at least half of the MO in the PO! In my case, this was just a sheet of stamps, but the max value of a MO is $700. That's a lotta stamps. I don't think this guy was joking, nor was he disgruntled. Anybody else run into this?

Please reply to me, not the list. I'll report back if it was a hoax.

Regards,
Bill Hawkins

Date: Sat, 27 Mar 1999 14:13:58 -0600 (CST)
From: Bill Hawkins <bill@iaxs.net>
Message-Id: <199903272013.OAA23907@citrus.iaxs.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: AN/URM32 Questions

Jerry,

I don't have the unit, but I also have nothing better to do than to try some answers.

1) The switch would be useful if closing the cover depressed it.

2) Neon bulbs on RC flashers don't flash at the time constant rate because the bulb doesn't completely discharge the capacitor. It only drops 90 to 65. Depending on how high B+ is, the rate can be much faster than the time constant.

3) If it puts AC on the filaments, the DC meter won't move much.

4) Insufficient info, does not compute.

Regards,
Bill Hawkins

Message-Id: <3.0.5.32.19990327154941.008ed5a0@pop.pipeline.com>
Date: Sat, 27 Mar 1999 15:49:41 +0000
To: Old Tube Radios <boatanchors@theporch.com>
From: "Lawrence R. Ware" <lrware@pipeline.com>
Subject: hocum? WAS-> Re: DO-Do Here
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 22:19 03/26/1999 -0800, Arden Allen <gumbear> wrote:

>Frankly Jack, it's a lot of hocum.
Beg to differ: Controlled startup of power supplies in one way
or another, has a long BA pedigree.
The Tek 5XX series comes to mind.

>If using surge arresters had any real
>merit in BA's they would have been installed in them.
Inrush current limiters and surge arresters are two different
beasts. Let's take them one at a time:

>Metal oxides
>varistors go back to the 50's, you find them commonly in TV's for
>temperature compensation for yokes and other drifty stuff.

From: "Transient Voltage Suppression Manual" 2nd ed. Published by
General Electric, copyright 1976:

"The first GE-MOV Varistors were introduced in 1972..."
(Referring to GE's brand of MOV or Metal Oxide Varistor.
MOV's are what is commonly referred to as a "surge arrester.")

"The GE-MOV Varistor is a voltage dependent, non-linear resistor with
symmetrical conductive properties.... The response is very
similar to back-to-back zener diodes."

These are commonly used across primary power feeds to shunt HV
spikes and surges from the hot side to ground or neutral.
Inrush Current Limiters are usually placed in series with the
primary winding of the main power transformer to limit current.

I recall thermistors, (yet another related but different device)
being common for several different purposes in older TV designs.
Don't believe I've ever seen either an "inrush limiter" or a MOV used
for "temperature compensation" anywhere.

Inrush current limiters are related to thermistors, as power
triodes are related to RF pentodes... same basic technology,
different applications, thus different implementations.

MOV's are yet a different technology, usually made of a
zinc-oxide/bismuth oxide of crystalline structure.

"Inrush current limiters" seem to be a pretty recent development.
Used extensively in switching power supplies, I'm unaware of common
use in the vacuum tube era.

>There is no
>great surge of current that wreaks havoc on tubes except in poorly >designed

>series-parallel strings before the "A" suffix controlled warm-up time
>standards came into being.

Correct, but misses the point.
Inrush limiters are added to older equipment not to ease start up
stress on vacuum tubes or filter capacitors, but the difficult
to repair or replace main power transformers.
These transformers lack the modern long life materials used today.
They were never designed to last 50+ years.
Initial surge *current,* in the first 10 milliseconds or so, is
limited only by the ohmic resistance of the primary winding.
This initial high current, which is very quickly limited by the
magnetic properties of the transformer, places some stress
on the windings and insulation.

How bad is this for the transformer? Hard to really say; One can
assume that when built, it would tolerate all normal conditions
of operation, including repeated power cycles.
50 years later? Insulation may have degraded, windings may have
worked loose and be moving around, Sulphur treated paper may have
enough moisture in it now to be making sulfuric acid.
Hard to say why any given transformer failed, but they *do* fail.

Are "inrush current limiters" a placebo? Perhaps, but I prefer to
think of them as cheap insurance.

About 50% of the old Nationals that come in here have bad main power
transformers. None of the still good ones, retrofitted (with inrush
limiters) units has failed yet. Your mileage may vary. :-)

Are "inrush current limiters" hocum?
I don't think so but:
You decide, it is your radio.
-Larry
# Larry's Home for Wayward Test Equipment & Old Radios <tm>
# Let your equipment retire in sunny central Florida.
# Intensive Care, Private Bench Space, Frequent Use,
# Factory trained HP, Tek & Fluke Surgeon on staff.
# Good Home Guaranteed or double your junk back!
# lrware@pipeline.com   - Orlando, FL -
# 407.679.1597

End of BOATANCHORS Digest 2477
****

>From ???@??? Sun Mar 28 14:40:46 1999
Message-Id: <199903280501.XAA16971@sco.theporch.com>
Date: Sat, 27 Mar 1999 23:01:01 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2478

BOATANCHORS Digest 2478

Topics covered in this issue include:

1) Re: AN/URM32 Questions
   by Jerry Proc <jproc@idirect.com>
2) Re: Voltage regulation
   by Sandy W5TVW <ebjr@worldnet.att.net>
3) Never Mind (S20R)
   by "A.B. Bonds" <ab@vuse.vanderbilt.edu>
4) Kon-Tiki
   by "Spencer Petri" <spetri@e-tex.com>
5) Re: Voltage regulation
   by "Arden Allen" <gumbear@pacbell.net>
6) Re: hocum? WAS-> Re: DO-Do Here
   by "Arden Allen" <gumbear@pacbell.net>
7) SIX M OT FB ON RX
   by JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)
8) RE: hocum? WAS-> Re: DO-Do Here
   by "Pete Ferrand" <pete@vermontel.net>
9) Misc Hallicrafters items FS
   by AA5QT@aol.com
10) TEK 561
   by "Steve" <scb@loki.internettport.net>
11) Divorce Sale - Part Four
   by Brian.Harris@sv.sc.philips.com (Brian Harris)
12) RE: TEK 561
   by "Ed Tanton" <n4xy@mindspring.com>
13) Re: TEK 561
   by "Arden Allen" <gumbear@pacbell.net>
14) RE: Voltage regulation
   by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
15) RE: A Postal MO....
   by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
16) BA Stuff FS
   by don merz <71333.144@compuserve.com>
17) New quasi-reliable numbers on the S20R
   by "A.B. Bonds" <ab@vuse.vanderbilt.edu>
18) Re: Misc Hallicrafters items FS

by GEORGE J MISIC <ke8rn@juno.com>
19) Re: The "hocum? WAS-> Re: DO-Do Here" debacle
by "Arden Allen" <gumbear@pacbell.net>

Message-ID: <36FD448B.AD79C311@idirect.com>
Date: Sat, 27 Mar 1999 15:50:19 -0500
From: Jerry Proc <jproc@idirect.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: AN/URM32 Questions
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bill Hawkins wrote:

> I don't have the unit, but I also have nothing better to do than to
> try some answers.
>
> 1) The switch would be useful if closing the cover depressed it.
>
> 2) Neon bulbs on RC flashers don't flash at the time constant rate
> because the bulb doesn't completely discharge the capacitor. It
> only drops 90 to 65. Depending on how high B+ is, the rate can
> be much faster than the time constant.
>
> 3) If it puts AC on the filaments, the DC meter won't move much.
>
> 4) Insufficient info, does not compute.
>

Hi Bill,

Some feedback - You are right on the mark.

For question 1 - Bingo! The cover does indeed have a metal protrusion which presses against the battery disconnect switch when the cover is attached. The clue isn't apparent when the cover is in the other room and the manul mentions nothing :-).

For #2 - Haven't used T-C theory for many years so I've totally forgotten that small point.

For #3 - Yes, a DC meter reads zero when fed with AC. I verified that with my Radio Shack VOM. Guess I'm getting rusty on the theory. Tat's the nature of the beast when running the URM32 with an AC power supply.

For #4 - Don't worry about the "floating" tube socket.. It's just a minor mechanical issue that I will figure out.

Thanks for your help.

BTW, I bought this unit at a flea market for $10. Since the Royal Canadian Navy used this equipment type in the 60's and beyond, it will make a great addition to the collection of "period" test equipment aboard HAIDA.

--

Regards,
Jerry Proc VE3FAB   jproc@idirect.com
Web: www3.sympatico.ca/hrc/haida
HMCS HAIDA Historic Naval Ship, Toronto Ontario

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: Re: Voltage regulation
Message-Id: <19990327215118.EQBT12652@LOCALNAME>
Date: Sat, 27 Mar 1999 21:51:18 +0000

At 02:23 AM 3/27/99 -1000, you wrote:
>Hi all,
>
>I am currently building a power supply for a RBC-2 and need some advice.
>
>I need to regulate 105V. AES does not list a VR100 in the tube list. What
>is the best way to regulate this voltage?
>
>Also, to rectify 200 and 105 volts, what rectifier tubes would be best?
>
>Thanks and aloha,
>
>Dave, WH6OL
>

A 5Y3GT rectifier would be fine if your power transformer has a 5 volt filament winding on it...OR...a pair of 1N4007 diodes, take your pick!

To get the 105 regulated is easy. Use either an 0C3/VR105 or a 0B2 gas regulator tube, depending on whether you like octal or miniature size tubes. You need to know what the current demand will be so you can determine the series dropping resistor for the regulator tube though! My guess is it will take 10 ma or less. I'd figure on a 15 ma total load at the VR tube end of the dropping resistor. If the main B+ supply was 200 volts, then (R=E/I) 200-95 volts divided by 0.015 amps= 6333 ohms Use a 6200 ohm 2 watt resistor for the dropper. The value will be different of course, if the B+ or the current demand is different.

I'm sure someone on the reflector knows exactly what the current requirements are for the 105 regulated for the RBA/RBB/RBC series.

73,
Sandy W5TVW

Message-Id: <1.5.4.32.19990327224618.0100d23c@mailhost.vuse.vanderbilt.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sat, 27 Mar 1999 16:46:18 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "A.B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: Never Mind (S20R)

One is never too old to learn.

Week or so back I sent a message about bad tracking in my S20R on BC band. Got a lot of very useful replies, and Philip McCoy kindly offered to send me a replacement for the oscillator coil, as it looked like that was the culprit. That woulda been an easy solution, but it wasn't. Sorry for the hassle, Philip. Put in the new/old coil and still had a problem. i.e., could align at 1400 kc but RF stages were way off at 600 kc. So I hung a counter on the oscillator. Much to my chagrin, it was saying that the IF stage was centered around 355 kc. Yikes!

As I mentioned, this set was a much-abused orphan. If there were a social services division for boatanchors, the DPO (Dreaded Previous Owner) would be in jail for abuse, neglect and failure to support. The IF cans are tuned by mica compression caps, which were turned in just about all the way. The book says to inject 455 kc into the signal grid of the mixer (6K8) with the set tuned to 2 mc. I dutifully had done that and had tuned up the IFs to maximize signal under that condition. But what I had apparently done was to tune the IFs to some weird product near 355, not 455.

This time I injected the 455 into the grid of the first IF tube, tuned the second and third tranformers to that, then moved to the mixer injection method and did the whole chain. And this time it tuned to 455 kc. Lesson being that when your set is really messed up, be careful of pumping in your 455 kc at or in front of the mixer, at least until you get the rest of the chain settled down. The problem was less apparent at the higher frequencies because the percentage of the error (100 kc) was much lower. Anyhoo, the

old girl works great now, running about 5 uV sensitivity on the lower bands,
10 on the highest.

73   A. B. (Am I embarassed) Bonds

Message-ID: <000101be78a6$5ddfb9c0$092619ce@default>
From: "Spencer Petri" <spetri@e-tex.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Kon-Tiki
Date: Sat, 27 Mar 1999 17:05:52 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Greetings,

I see that Kon-Tike is back on the local PBS station tonight. Check those TV guides.

es 73 de Pete WA5JCI

6 meter VUCC # 361
2 meter VUCC # 346

Message-Id: <199903272330.PAA07954@mail-gw5.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Voltage regulation
Date: Sat, 27 Mar 1999 15:31:35 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Dave's project:

> ......I need to regulate 105V. AES does not list a VR100 in the tube
list. What
> is the best way to regulate this voltage?.....

A voltage regulator circuit, in order to maintain a constant output voltage, must supply whatever current the load demands. A regulator design must accomodate that current demand, from the absolute minimum to the absolute maximum and do it without being affected by component tolerances and aging. A gas tube shunt regulator tube must be operated within its specified current range to be able to regulate properly as specified above.

Your first step is to acquaint yourself with the specifications of tubes you are considering for the job. The next step is to determine the range of current the regulator circuit needs to supply. If a gas tube cannot provide sufficient regulating range than you should use a series pass regulator. A series pass circuit is nothing more than a current amplifier that uses as large a pass tube as necessary to supply the necessary current. A series pass circuit, because of the voltage gain in its error amplifier, can give much tighter regulation than a gas tube regulator. Some tubes to consider, from low to high current, are the 12B4A, 6AQ5, 6Y6G/GT, 6L6G/GA/GB/GC series and the 6080.

> ......Also, to rectify 200 and 105 volts, what rectifier tubes would be best?

As for rectifiers, they must be able to supply the current the load requires. The type chosen depends also on the filter circuit used, a capacitor input filter demands higher peak currents than a choke input filter. There are graphs in tha Radio Amateur's Handbooks of BA times that give guidance.

Cuddle up with a tube manual and get familiar with the specs, read up on power supplies and look at lots of circuits. You'll get the ideas you need.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <199903272345.PAA10330@mail-gw5.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: hocum? WAS-> Re: DO-Do Here
Date: Sat, 27 Mar 1999 15:41:22 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Larry;

Thankyou for helping me make my point.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit
Date: Sat, 27 Mar 1999 19:49:36 -0500 (EST)
Subject: SIX M OT FB ON RX

To: Old Tube Radios <boatanchors@theporch.com>
From: JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)
Message-ID: <9903271949.aa28325@pcusa01.ecunet.org>

And earlier than in 1958, Ed Tilton was at first surprised that his new red hot 6 m converter was no better (& maybe a little worse) than his previous converter. Being smart, he quickly realized that antenna (galactic) noise at quiet locations was the limiting factor not front end noise figure.

The hotter converters actually cross modulated more easily, so...
Sometimes, more is not better.

-John Sehring (Sat, Mar 27, 1999 Custer SD USA) UCC WB0EQ

Message-Id: <199903280055.TAA26628@raptor.vermontel.net>
From: "Pete Ferrand" <pete@vermontel.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: hocum? WAS-> Re: DO-Do Here
Date: Sat, 27 Mar 1999 19:57:44 -0500

>
> >Metal oxides
> >varistors go back to the 50's, you find them
> commonly in TV's for
> >temperature compensation for yokes and other
> drifty stuff.
>
> From: "Transient Voltage Suppression Manual" 2nd
> ed. Published by
> General Electric, copyright 1976:

Well MOVs are used to protect electronics from short pulses of surges on the AC mains, not from inrush damage.

The 1950's technology took the form of, for instance, the Wuerth (sp?) "Surgistor" which was sometimes installed in sets and also available as an accessory from outfits like Workman, which consisted of a Surgistor in a metal box that plugged into the wall like a wall transformer.

The one of these I had or may still have, was a sand-type power resistor with a metal strip adjacent to it. The concept was that the resistor was in series with the line when cold, thus limiting inrush. As the resistor heated up, it caused the strip to bend, allowing it to move against a matching contact. The strip and the contact were wired such

that this action would short out the resistor, allowing full
voltage on the set.

Worked OK until the metal strip lost its ki and failed to
move.

The thing that compensated for "drifty stuff" was a voltage
dependent resistor, or VDR. I don't think those were ever
used in electronics other than in TV sets, so I've no
experience with 'em.

73,
-Pete
WB2QLL
Plainfield, NH

From: AA5QT@aol.com
Message-ID: <81bc1144.36fd86fb@aol.com>
Date: Sat, 27 Mar 1999 20:33:47 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Misc Hallicrafters items FS
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I have some stuff from a Silent Key. I cannot guarantee their condition
electrically, but they all look fine (that's why the prices are low), and I
see no mods.

HA-8 SplatterGuard $40 plus shipping.

HA-1 (TO) Keyer $40 plus shipping

SP-44 SkyRider Panadapter $50 plus shipping (heavy)

SM-40 External S Meter $30 plus shipping

73, Gary Youney K5QT

Message-Id: <199903280156.TAA28725@loki.internettport.net>
From: "Steve" <scb@loki.internettport.net>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sat, 27 Mar 1999 19:42:41 +0000
MIME-Version: 1.0

Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Subject: TEK 561

Greetings;

Can someone provide info concerning specs, reputation, reliability & desirability of a Tektronix R561 B o'scope w/ 3B3 timebase & 3A1 dual trace amp plug-ins. Is it worth fooling with? Thanx for any assistance. BTW, It was a freebie, orphaned on my doorstep.

Regards; Steve

Mime-Version: 1.0
Date: Sat, 27 Mar 1999 19:14:12 -0800
Message-ID: <002DD613.1914@svlima.sv.sc.philips.com>
From: Brian.Harris@sv.sc.philips.com (Brian Harris)
Subject: Divorce Sale - Part Four
To: Old Tube Radios <boatanchors@theporch.com>
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Description: cc:Mail note part

Due to my pending marriage I must divorce myself from the following items. I prefer to sell but I am open to trades for tubes only. All items plus shipping from 75080 (Richardson, Texas).

Should you reply and not hear back from me someone else got what you wanted. Anyone who can pick an item up gets first consideration. Otherwise it's first come, first served or best story.

1. RBU-1 Panoramic Radio Adapter Serial #107 - It looks like it was originally black but it's grey now. The labeling has been masked off so that it still has the black background along with the letters. I have not powered it up but the chap that I bought it from said it worked the last time he used it which was probably 15 years ago or more. It's been nicely protected by a layer of nicotine. $75

2. Receiver Level Monitor - this was made for the Department of Commerce (Civil Aeronautics Administration) by The Teleregister Corporation. It's a 7" rack mounted affair with a 4" speaker, an AC voltmeter and a volume control on its hinged front panel. There is a full wave power supply with a 5Y3 to power the 6J5, 6SN7 and 6V6 that drive the speaker. The audio chain has a low pass filter. I have not powered it up but it came out of service within the last 2-3 years and is in excellent condition. Weight=25 pounds. $20 + shipping

3. Shallcross No. 6350-A Wheatstone MegaOhm Bridge - this unit has a range from

.001 X 10*1 (1K Ohm) to 111.1 X 10*12 (a bunch of Ohms). It requires an external power source (low frequency AC or DC) and an external detector. It utilizes high precision (.1%) resistors and the best looking 11-position ceramic switches I have ever seen (they make me want to scrap it and build five 11-band linear amplifiers). $20

4. 1K VDC power supply. This was originally a 750V negative (wrt ground) supply that came out of microwave service. I changed it to capacitive input and replaced the 866's with solid state plug-ins. It has two meters (1 mA=1KV and 300 mA) and is rack mounted. I suspect it would be good for 500 Watts in amateur use. Weight=58 pounds. $60 w/diodes, $40 w/o

5. 103-107 VDC/400 mA regulated supply - rack mounted and weighs 42 pounds $25

6. 300 VDC/1A regulated supply - rack mounted and weighs 58 pounds $25

73, Brian Harris WA5UEK
Plano, Texas

From: "Ed Tanton" <n4xy@mindspring.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: RE: TEK 561
Date: Sat, 27 Mar 1999 22:19:40 -0500
Message-ID: <002e01be78c9$d15cc4b0$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Steve... the first thing you should do is get a decent trace. Put the horizontal switch to 0.1 VDC and the vertical to the same setting. Put the trigger switch on the timebase to AUTO. Swing the Trigger Control through its range... you should have a line across the screen. If not, try increasing the brightness until you see something-hopefully the line... possibly just a dot. That would say you either do not have something set right, or a bad timebase. DO NOT remove these plug-ins while powered. If you have your line, the next thing to check is the CRT itself.

To check any scope CRT: 1st, slowly turn the intensity control up. It should increase all the way to the end-possibly leveling off, but if it reaches a peak and then backs off as you continue to increase the control, that is called "peaking" and means the CRT is not long for this world. Also, a bit more difficult to interpret: in turning the intensity all the way up, you should have only a limited amount of trace width increase... if there's a LOT, the CRT may be "blooming".

If the CRT is ok, and the vert & horiz pots are OK-e.g. not grossly noisy, then yes indeed. It was a good scope, and will be as reliable as anything can be... they did good work back then. Only real caution is that there is a mix of higher voltages and transistor voltage levels.

I once managed to get a probe across two terminals while calibrating one, and blew the tops off practically every 2N3904 in the unit! But I should have been more careful, that's all. Of course, my boss (at Tektronix) was really grumpy at me for a while!

You will want to put the calibrator on the input, set the vert & horiz to appropriate values, and run through the vertical steps, and with your best trace height (say 1 or 2 divisions) run through the horizontal ranges and see how they respond.

The trace should appropriately cover the entire screen width, and the focus should be bright and in good focus. I forget whether they have fans, but if it does, you should clean the filter (or replace it if it is a rotten foam filter.)

When you have a fairly good square wave calibrator signal, get a stable trace with 1 or 2 divisions in height, and 1 division per transition horizontally. Then switch the trigger from AUTO to manual, INTERNAL, and check the range of the triggering with the VAR TRIGGER pot. It should trigger on the trace pretty good, and not touchy. If you have a BNC T, take the CAL signal and put (also) into the External Trigger BNC connector. Switch the Trigger to EXT and see if it will trigger-it SHOULD trigger VERY well.

Lastly, if you have a pretty good DVM, I'd look in the manual for the voltage measurements on the PS, and I'd check those. Be wary of the CRT HV, most DVMs won't check it anyway.

I've always liked the 560 series, and found they were good, easy to calibrate and service. And, of course, a free one is nice!

I hope this will help with your decision.

72 / 73 Ed N4XY email: <n4xy@mindspring.com>

Message-Id: <199903280432.UAA16930@mail-gw3.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: <n4xy@mindspring.com>
Subject: Re: TEK 561
Date: Sat, 27 Mar 1999 20:33:22 -0800
MIME-Version: 1.0

Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi Steve;

Ed, obviously, is your man for the 561B. I know it to be a good 'scope and yours should be a keeper.....and the price is right! However, I wouldn't be worried so much about the CRT if the trace exhibits "peaking" when cranking up the intensity conrtol. As long as the trace intensity remains steady at a reasonable viewing level below maximum intensity you should still have many hours of operation left. My 545B exhibited peaking when I first found it in the used instruments collection of an electronic hobbyist's store (I foreget the name of the place in Santa Ana, CA) in 1986 and it's still on my work bench giving faithful service. Be sure you carry out the power supply checks carefully when you get a manual. Don't blow up all the 2N3904's.....hi!

In addition (with the power off) lubricate all of the rotary switch contacts with Caig De-Oxit or GC De-Ox-Id. Apply with an artist's brush, you don't want any of it to get into compression or piston trimmer capacitors! Apply contact cleaner to the plug-in connector contacts also. I find WD-40 to be good for pots. Be careful when spraying pots, you don't want it running all over the place. Lubricate switch shaft bushings with 3-In-1 electric motor oil. I believe there is a cooling fan in the 561B (correct me if I'm wrong, Ed). The motor bearing oil resevoirs should get a few drops of electric motor oil, if the fan spins with some drag, apply oil directly to the shaft bushings. DON'T run fan motors without lubrication! The only thing that kills a good Tektronix 'scope is lack of proper preventive maintenance.

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

Date: Sat, 27 Mar 1999 23:32:12 -0500
From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
Subject: RE: Voltage regulation
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903272333_MC2-6FB7-8696@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline

Dave & group,

The regulator tube used in the CRV-20130(*) Rectifier Power Supply for th=
e
RBA, RBB and RBC was the 0C3/VR-105 (38205). The rectifier used was the

5U4G. =

73,
Robert Downs
WA5CAB
Houston

Date: Sat, 27 Mar 1999 23:32:14 -0500
From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
Subject: RE: A Postal MO....
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903272333_MC2-6FB7-8697@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline

Bill & group,

Never tried to cash an MO at a Post Office. I always deposit them like a=
ny
other check. Deposited one today in fact. I have run into the PO's othe=
r
dumb rule, however. I shipped $115 worth of stuff (shipping cost, that i=
s
- one box was going to Australia) a few weeks ago and needed a $14.00 MO =
to
mail to someone for a TM. Was informed that I could pay the $115 with a
check but the $14.00 would have to be cash. This was after waiting in li=
ne
for about 30 minutes. I take MO's but have to want something pretty badl=
y
to go to the trouble to send one.

73,
Robert Downs
WA5CAB
Houston

Date: Sat, 27 Mar 1999 23:31:37 -0500
From: don merz <71333.144@compuserve.com>
Subject: BA Stuff FS
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903272335_MC2-6F99-6B60@compuserve.com>
MIME-Version: 1.0

Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

Boatanchor Goodies For Sale

CONTACT: Don Merz, N3RHT, 47 Hazel Drive, Mt. Lebanon, PA 15228
71333.144@compuserve.com

Military BX-49 spares box for BC-611 walkie talkie. This small wooden box was designed to contain all of the coils, spare tubes and crystals for use in the BC-611. This on is in great shape. It has all the coils except one. It has only 3 of the original JAN spare miniature tubes, 7 receive crystals and 2 transmit crystals. With canvas strap. $85

Hallicrafters S-40A receiver. 1948-vintage general coverage boatanchor with built-in speaker. This has 4 small marks on the silver speaker grille paint and some very small scratches on the side. But other than that, this radio is in extremely sharp, excellent, original condition. Working just as good as it looks--recapped (beautifully done) and aligned. Good looking plug-n-play BA. $100 with original Hallicrafters Service Bulletin and Sams photofact.

Allied Knight T-50 transmitter. 1958-vintage 50-watt kit transmitter CW-only. 6AG7 driving an 807. Crystal-control or external VFO. This one has some dings in the paint but is mostly excellent. The front panel has a couple blemishes but it too is excellent. All original. You don't see these every day. $115

Military J-38 key. Needs cleaned but no chips or dings. Nice. $24 PPD

Reel-to-Reel Tapes. All have original box. Box and tape are in excellent condition. $3 each unless noted.

Les & Larry Elgart, Warm & Sensuous, Columbia, 7-1/2 IPS
Peter, Paul & Mary, Album, Warner Bros., 7-1/2 IPS
Peter, Paul & Mary, See What Tomorrow Brings, Warner Bros, 7-1/2 IPS
Paul Simon, There Goes Rhymin' Simon, Columbia, 3-3/4 IPS. Still factory shrinkwrapped--brand new. $5
Barbra Streisand, The Barbara Streisand Album, Columbia, 7-1/2 IPS
Barbra Streisand, Color Me Barbra, Columbia, 7-1/2 IPS
Barbra Streisand, Stoney End, Columbia, 3-3/4 IPS

DEC PDP-8F power supply. Big supply with 2 8" fans. DEC part number 70-13323-00. With AC-cord and output connector panel. This thing supplies +5, -5, -15 and +20, volts DC all at substantial ratings. Seems to be in nice shape. Worked when pulled from service. $30

WANTED
Manual copy for Heath IG-1272 Audio Generator
Manual copy for B&W Model 400 Distortion Meter

CONTACT: Don Merz, N3RHT, 47 Hazel Drive, Mt. Lebanon, PA 15228
71333.144@compuserve.com

Message-Id: <1.5.4.32.19990328044127.00af3ab0@mailhost.vuse.vanderbilt.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sat, 27 Mar 1999 22:41:27 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "A.B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: New quasi-reliable numbers on the S20R

I was just guessing on the sensitivity of the S20R in the last post on the basis of the generator settings. But for those of you who might be curious as to just how good these ubiquitous old mules are, I ran some more careful tests.

Setup: URM25F generator feeding through 400 ohm dummy antenna. Simpson 260 across output transformer primary (with blocking cap) to measure AC out.

Method: 400 Hz modulation, 30%. I first set the output to -4 dB on the Simpson with the carrier but without the modulation. Then added the modulation and adjusted iteratively for a 10 dB gain (S+N/N). I would note that there was a fair amount of carrier noise. I got rather better sensitivity figures if I moved away from the carrier to measure the noise, since the "signal" had both the modulation and the carrier noise. But I figgered that's cheating, so these numbers are for 10 dB of modulation over the carrier noise plus the music of the spheres.

600 kc	5.2 uV
1400 kc	5.5 uV
2 mc	2.8 uV
4 mc	2.4 uV
7 mc	3 uV
14 mc	3 uV
17 mc	28 uV
34 mc	23 uV

Well, clearly the high band is wanting. The reason it's worse at 17 mc is that there is no padder adjustment on that band to help track the rf stages (not that it would make that much diff). But I gotta admit I'm impressed by the middle bands. Not bad for a run-of-the-mill 60-year-old that was abused as a child.

73 A. B. Bonds

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: Misc Hallicrafters items FS
Message-ID: <19990328.003802.6535.0.KE8RN@juno.com>
From: GEORGE J MISIC <ke8rn@juno.com>
Date: Sat, 27 Mar 1999 23:43:58 EST

Gary,

I will take all of the items on your list. If any are already sold, I will take all and anything that is left. Please let me know what I can have and where to send the money.

73.

George KE8RN

On Sat, 27 Mar 1999 20:33:47 EST AA5QT@aol.com writes:
>I have some stuff from a Silent Key. I cannot guarantee their
>condition
>electrically, but they all look fine (that's why the prices are low),
>and I
>see no mods.
>
>HA-8 SplatterGuard $40 plus shipping.
>
>HA-1 (TO) Keyer $40 plus shipping
>
>SP-44 SkyRider Panadapter $50 plus shipping (heavy)
>
>SM-40 External S Meter $30 plus shipping
>
>73, Gary Youney K5QT
>
>

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or call Juno at (800) 654-JUNO [654-5866]

Message-Id: <199903280500.VAA21770@mail-gw3.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: The "hocum? WAS-> Re: DO-Do Here" debacle
Date: Sat, 27 Mar 1999 21:01:45 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Well, it seems I created a debacle over the subject of protecting BA's from inrush currents. I made my point about whether I think BA's NEED inrush current protection (no, other than what manufacturer's originally provided). My choice of "metal oxide varistor" as a name for what has been pointed out should have been called an "inrush current limiter" was an unfortunate lapse on my part.

Going to my Modern Dictionary of Electronics (Howard Sams, 1962, '63, & '68), a "varistor" is "A two-electrode semiconductor device with a voltage-dependant nonlinear resistance that drops off markedly as the applied voltage is increases". Sounds like a good convention forming description for what a metal oxide varistor does.

An "inrush current limiter" is really in the thermistor category. Sams says a thermistor is "A solid state semiconducting device, the electrical resistance of which varies with the temperature. Its temperature coefficient of resistance is high, nonlinear, and negative".

Such as what Sams says is open to controversy as well because I question the use of "semiconductor" as applied to all varistors and there are positve temperature coefficient thermistors.

So "what's in a word?" makes for good BA List controversy!! 73 to all.

End of BOATANCHORS Digest 2478
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